

PRE-COUNCIL
(CORRECTED Version with Attachments of
Presentation Slides and Answers to Council's Questions)
LWS Water Supply Update
Monday, December 5, 2005

Meeting Began at: 10:30 a.m.

Meeting Ended at: 11:30 a.m.

Members Present: Ken Svoboda, Annette McRoy, Dan Marvin, Robin Eschliman, Patte Newman

Members Absent: Jonathan Cook, Jon Camp

Others Present: Karl Fredrickson (PW/U), Steve Masters (PW/U), Jerry Obrist (LWS), Nick McElvain (LWS), John Miriovsky (LWS), Margaret Remmenga (Water Business Office), Dana Roper (City Law), Steve Huggenberger (City Law), Coby Mack (LIBA), Nan Welsh (LWS)

Summary Discussion

- Pumping 2005
- Drought 2005
- Supply / Treatment Projects in CIP
- Legal Framework

Follow Up Items

- Surrounding community water rates - delivered at Council Retreat December 14
- CIP Breakdown - memo from Karl Fredrickson to follow

Handouts accompanied this water update presentation. Ken Svoboda opened the meeting with introductions. Karl Fredrickson made some comments citing drought and growth affecting Water Production and Supply.

Jerry Obrist reported on issues related to water supply, such as, the wellfield supply can support a 400,000 population; Arsenic Rule; Best Management Practices (BMP's) for Agriculture chemical runoff control; and, groundwater availability. **(slides 1 & 2)**

John Miriovsky discussed factors influencing water supply and demand, such as, climate considerations (drought); soil types (clay); outdoor water usage affected by number of days greater than 90 degrees; restrictions (water conservation); and, water main and water service breaks higher in drought cycles. **(slides 3, 4 & 5)**

At this point several questions were asked. Robin Eschliman asked for an interpretation of the graphs (outdoor water use is in billions of gallons) and Ken Svoboda asked about the influence of commercial, industrial, and large users with respect to summer outdoor use.

Nick McElvain talked about future needs and costs, namely, CIP, Master Plan, and three major water projects. The projects include transmission lines (\$20M); well costs (\$9M); and Ashland Treatment expansion (\$19M), all of which are in the current CIP. These three make up 45% of the 6 year CIP. Nick McElvain said projects would be funded through rate increases and bond issues. **(slides 6 & 7)**

Annette McRoy asked about the transmission mains. Nick McElvain said the length is about 48,000 feet. Dan Marvin commented on peaking demands, recharge of wellfields, and wellfield management. Nick McElvain cited the possibility of having to call upon water conservation measures for extreme high use cases on a periodic basis.

Patte Newman's question regarding recharge were answered. Annette McRoy's rate increase question was answered as a planned 7% increase, followed by several 5% increases. Steve Masters addressed Dan Marvin's comments regarding the feasibility of landscape credits that are issued in Las Vegas and Phoenix. He said there was a very good response in 2002 with landscape and plant materials educational issues that the water department encourages, but credits might be a consideration in the future. Karl Fredrickson added that the rate structure lends itself to discouraging high usage. Ken Svoboda asked if voluntary and education efforts work and Nick McElvain said yes.

Dan Marvin mentioned the concept of regional water rate charges. He wants feedback when rate increases come before the Council again. He was assured that information would be sought. Robin Eschliman asked about the CIP. Nick McElvain explained how the finance was structured for projects. Steve Masters reiterated that there is a need to plan for growth and it is necessary to have a comprehensive program in place.

Steve Huggenberger was introduced and he spoke on water right issues. He talked about the permit application with the Nebraska Department of Natural Resources. He said the state Water Resource Task Force and negotiations for Municipal Exemption with the Natural Resource District looks positive. **(slide 8)**

Dan Marvin asked about water restrictions in place, permits, surplus, and the NRD. Steve Huggenberger said agriculture concern for a water market has no basis now. Usage can go from *agriculture → agriculture* but not *agriculture → municipal*.

In closing, Karl Fredrickson mentioned the importance of training staff, automation, and management development. Steve Masters said there are about 100 employees at Water.

Prepared by: Nan Welsh, Lincoln Water System

cc: Mayor's Office
City Council Office

LWS WATER SUPPLY UPDATE

Lincoln City Council
December 2005

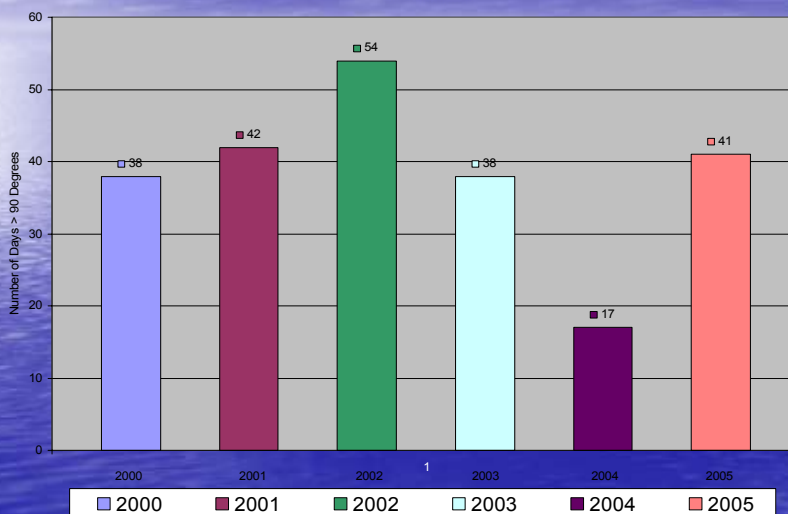
Water Supply

- Existing Wellfield can serve 400,000 to 450,000 Population – approximately year 2050
- State & Regional Water Resource Issues
- Federal Water Quality Regulations
- Climatological Conditions

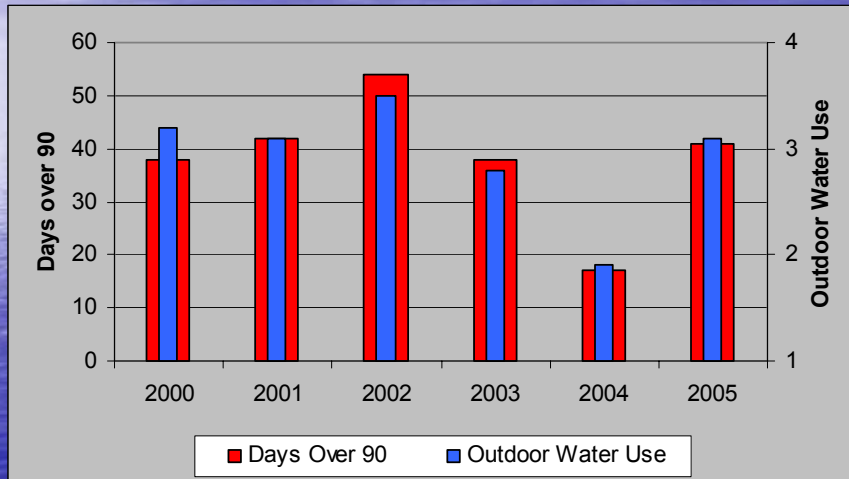
Demand Issues

- 2005 - 4th Highest Total F.Y. Water Use - 13.8 Billion Gallons
- July 2005 - Highest Month in 30 Years
- Deficient Rainfall
- High Temperature Variations

Days Greater Than 90 Degrees



Days over 90 vs. Outdoor Water Use



CIP Projects Scheduled

Recommended in Facilities Master Plan

- Water Transmission Main - \$20 Million – 2005-09
- New Wells - \$9 Million – 2007-10
- Treatment Plant Expansion - \$19 Million – 2008-12
- Requires Future Rate Increases

Ongoing Considerations

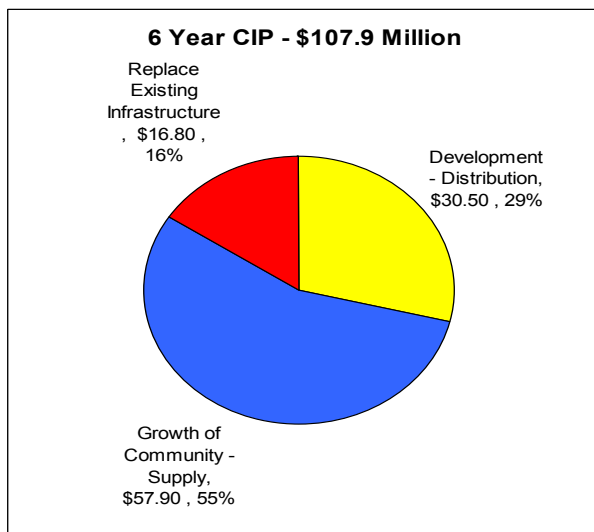
- Water Quality Considerations
- Capital Replacements & Upgrades
- Energy Cost Impacts
- Human Capital – Needed For Growth plus a Number of Staff Retirement Age

Water Rights

- Pending Permit from Natural Resources Department
- Update from Law Department
- Questions

To: City Council
From: Karl Fredrickson
Cc: Steve Masters, Margaret Remmenga, Jerry Obrist

A question was asked during our Pre-Council session on Dec 5 regarding the breakdown of CIP expenditures. The graph below shows a break down of the current 2005-11 six year CIP. The **Growth of Community – Supply** category includes wells, treatment plant, transmission main, pump stations, and reservoirs. The **Development – Distribution** is for the grid system of distribution mains to serve the growth areas of the Comp Plan. **Replace Existing Infrastructure** is replacement of existing mains.



The second chart show total appropriations for 2005-06 FY. **O&M** includes staff, supplies, services, and capital outlay for daily operations. **Debt Retirement** is the payment on previous bond issues. **Capital Improvements Program** is for all of the infrastructure improvements and replacements.

